

AMENDMENTS TO THE CLAIMS

1-2. (Cancelled)

3. (Previously Presented) A network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes either or both of

at least one target operable to receive a message and perform processing according to the message, and

at least one controller operable to transmit the message and establish a connection for data transmission with said target;

said network control system comprises said controller and said target;

said controller and said target are each connected to one transmission line;

said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on an established connection;

said controller is operable to establish, before data transmission, a connection of said second data transmission mode to said target;

when said controller receives data of the message from said target, said controller is operable to make a data request by using said first data transmission mode;

said target is operable to transmit the data onto the established connection by using said second data transmission mode according to the data request; and

said controller is operable to receive the data by using said second data transmission mode.

4. (Cancelled)

5. (Previously Presented) A network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes either or both of

at least one target operable to receive a message and perform processing according to the message, and

at least one controller operable to transmit the message and establish a connection for data transmission with said target;

said network control system comprises said controller and said target;

said controller and said target are each connected to one transmission line; said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on an established connection;

said controller is operable to establish, before data transmission, a connection of said second data transmission mode to said target;

said target is operable to spontaneously transmit data to said controller through the established connection by using said second data transmission mode; and

said controller is operable to receive the data by using said second data transmission mode.

6. (Currently Amended) A network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices comprises at least one of

at least one controller operable to receive and transmit a message,
 at least one target operable to perform processing according to the
 message, and which includes at least one internal function control means for
 performing data transmission and a connection management means for connecting
 an output of said internal function control means,
 a consumer operable to receive data from said target, and
 an initiator operable to establish a connection for data transmission
 between said target and said consumer;
 said network control system comprises said controller, said target, said consumer
 and said initiator;
 said controller, said target, said consumer and said initiator are each connected to
 one transmission line;
 said plurality of ~~protocols~~ data transmission modes comprise
 a first data transmission mode which comprises a message transmission
 for transmitting the message and a message response which is a response to the
 message transmission, and
 a second data transmission mode for data transmission onto an established
 connection; and
 when said internal function control means performs the data transmission, said
 connection management means in said target connects the output of said internal function
 control means to a connection of said second data transmission mode according to a
 request of said internal function control means.

7. (Previously Presented) A network control system for transmitting data between
 devices by using a plurality of data transmission modes in a network in which at least two
 devices for handling at least one kind of data among video data, audio data, and
 information data are connected through one transmission line, wherein:

each of said at least two devices comprises at least one of
 at least one controller operable to receive and transmit a message,
 at least one target operable to perform processing according to the
 message, and which includes at least one internal function control means,

a consumer operable to receive data from said target, and
an initiator operable to establish a connection for data transmission
between said target and said consumer;
said network control system comprises said controller, said target, said
consumer and said initiator;
said controller, said target, said consumer and said initiator are each connected to
one transmission line; said plurality of data transmission modes comprise
a first data transmission mode which comprises a message transmission
for transmitting the message and a message response which is a response to the
message transmission, and
a second data transmission mode for data transmission on an established
connection; and
said target is operable to transmit data including an identifier which specifies the
output source of the data, on the connection, according to said second data transmission
mode.

8. (Previously Presented) A network control system for transmitting data between
devices by using a plurality of data transmission modes in a network in which at least two
devices for handling at least one kind of data among video data, audio data, and
information data are connected through one transmission line, wherein:

each of said at least two devices comprises at least one of
at least one controller operable to receive and transmit a message,
a target operable to perform processing according to the message,
a consumer operable to receive data from said target, and
an initiator operable to establish a connection for data transmission
between said target and said consumer;
said network control system comprises said controller, said target, said consumer
and said initiator;
said controller, said target, said consumer and said initiator are each connected to
one transmission line;
said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on an established connection;

said controller is operable to transmit an identifier indicating the destination in said consumer, to said target, by using said first data transmission mode; and

said target is operable to transmit the data including the identifier which indicates the destination and is received by said first data transmission mode, on the established connection, by using said second data transmission mode.

9. (Previously Presented) A network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices comprises at least one of

at least one controller operable to receive and transmit a message,

at least one target operable to perform processing according to the message, and which includes at least one internal function control means,

a consumer operable to receive data from said target, and

an initiator operable to establish a connection for data transmission between said target and said consumer;

said network control system comprises said controller, said target, said consumer, and said initiator;

said controller, said target, said consumer and said initiator are each connected to one transmission line;

said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on an established connection;

said controller is operable to transmit the message by using said first data transmission mode to a plug through which data is input and output to/from a desired internal function control means of said target; and

said target is operable to execute the process specified by the message which is directed to the plug.

10. (Previously Presented) A network control system as described in any one of Claims 3, 5 to 9 and 34 to 36, wherein the message includes a message for confirming the data transmission by said second data transmission mode.

11. (Previously Presented) A network control system as described in any one of claims 3, 5 to 9 and 34 to 36, wherein the data transmitted by said second data transmission mode includes version information, and a version of the data is managed by using the version information.

12. (Previously Presented) A network control system as described in any one of Claims 3, 5 to 9 and 34 to 36, wherein the data transmitted by said second data transmission mode is information about a graphical user interface which forces said controller to make a notification to a user.

13. (Previously Presented) A network control system as described in any one of Claims 3, 5 to 9 and 34 to 36, wherein the data transmitted by said second data transmission mode includes attribute information of the data.

14. (Previously Presented) A network control system as described in Claim 13, wherein the attribute information includes an identifier, size information, and a data section.

15. (Previously Presented) A network control system as described in any one of Claims 3, 5 to 9 and 34 to 36, wherein the data transmitted by said second data transmission mode is based on an object as a unit.
16. (Previously Presented) A network control system as described in Claim 15, wherein the object has the same structure as attribute information of the data transmitted by said second data transmission mode.
17. (Previously Presented) A network control system as described in Claim 15, wherein the object has an identifier, size information, and a data section.
18. (Previously Presented) A network control system as described in Claim 15, wherein the object has attribute information in the data section.
19. (Previously Presented) A controller used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:
- each of said at least two devices includes either or both of
 - at least one controller operable to transmit a message, and
 - at least one target operable to receive the message and perform processing according to the message;
 - said network control system comprises said controller and said target;
 - said controller and said target are each connected to one transmission line;
 - a connection for data transmission between said controller and said target is established by said controller;
 - said plurality of data transmission modes comprise
 - a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on an established connection; and

said controller is operable to support said plurality of data transmission modes, to transmit the message by using said first data transmission mode, and to receive the data from the connection by using said second data transmission mode.

20. (Previously Presented) A controller used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes either or both of

at least one controller operable to transmit a message, and

at least one target operable to receive the message and perform processing according to the message;

said network control system comprises said controller and said target;

said controller and said target are each connected to one transmission line;

a connection for data transmission between said controller and said target is established by said controller;

said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on an established connection; and

said controller is operable to support said plurality of data transmission modes, to make a data request by using said first data transmission mode, and to receive the data transmitted according to the data request, from the connection, by using said second data transmission mode.

21. (Previously Presented) A controller used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

- each of said at least two devices includes either or both of
 - at least one controller operable to transmit a message, and
 - at least one target operable to receive the message and perform processing according to the message;
- said network control system comprises said controller and said target;
- said controller and said target are each connected to one transmission line;
- a connection for data transmission between said controller and said target is established by said controller;
- said plurality of data transmission modes comprise
 - a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and
 - a second data transmission mode for data transmission on the established connection; and
- said controller is operable to support said plurality of data transmission modes, to establish the connection to said target in advance, to make a data request by using said first data transmission mode when receiving data, and to receive the data transmitted according to the data request, from the connection, by using said second data transmission mode.

22. (Previously Presented) A controller used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

- each of said at least two devices includes either or both of

at least one controller operable to transmit a message, and
at least one target operable to receive the message and perform processing according to the message;
said network control system comprises said controller and said target;
said controller and said target are each connected to one transmission line;
a connection for data transmission between said controller and the target is established by said controller;
said plurality of data transmission modes comprise
a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and
a second data transmission mode for data transmission on the established connection; and
said controller is operable to support said plurality of data transmission modes, and to receive the data which is transmitted on the connection spontaneously by said target according to said second data transmission mode.

23. (Previously Presented) A controller used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes either or both of
at least one controller operable to transmit a message, and
at least one target operable to receive the message and perform processing according to the message;
said network control system comprises said controller and said target;
said controller and said target are each connected to one transmission line;
a connection for data transmission between said controller and said target is established by said controller;
said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on the established connection; and

said controller is operable to support said plurality of data transmission modes, to establish the connection of said second data transmission mode to said target in advance of data transmission, and to receive the data which is transmitted onto the connection spontaneously by said target according to said second data transmission mode.

24. (Previously Presented) A controller used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes at least one of

at least one controller operable to receive and transmit a message,

a target operable to perform processing according to the message,

a consumer operable to receive data from said target, and

an initiator operable to establish a connection for data transmission between said target and said consumer;

said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on the established connection;

said network control system comprises said target, said controller, said consumer and said initiator;

said target is operable to transmit data including an identifier indicating the destination and received by said first data transmission mode, onto the connection, according to said second data transmission mode;

said target, said controller, said consumer and said initiator are each connected to one transmission line; and

said controller is operable to transmit the identifier indicating the destination in said consumer, to said target, by using said first data transmission mode.

25. (Previously Presented) A controller used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes at least one of

at least one controller operable to receive and transmit a message,

at least one target operable to perform processing according to the message, and which includes at least one internal function control means,

a consumer operable to receive data from said target, and

an initiator operable to establish a connection for data transmission between said target and said consumer;

said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on the established connection;

said network control system comprises said target, said controller, said consumer and said initiator;

said target is operable to execute a process specified by the message which is directed to a plug through which data is input and output to/from a desired internal function control means of said target;

said target, said controller, said consumer and said initiator are each connected to one transmission line; and

said controller is operable to transmit the message to the plug by using said first data transmission mode.

26. (Previously Presented) A target used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes at least one of

- at least one controller operable to transmit a message, and
- at least one target operable to receive the message and perform processing according to the message;

said network control system comprises said controller and said target;

said controller and said target are each connected to one transmission line;

a connection for data transmission between said controller and said target is established by said controller;

said plurality of data transmission modes comprise

- a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and
- a second data transmission mode for data transmission on the established connection; and

said target is operable to support said plurality of data transmission modes, and to transmit the data onto the connection by using said second data transmission mode according to the message received by said first data transmission mode.

27. (Previously Presented) A target used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes either or both of
at least one controller operable to transmit a message, and
at least one target operable to receive the message and to perform
processing according to the message;
said network control system comprises said controller and said target;
said controller and said target are each connected to one transmission line;
a connection for data transmission between said controller and said target is
established by said controller;
said plurality of data transmission modes comprise
a first data transmission mode which comprises a message transmission
for transmitting the message and a message response which is a response to the
message transmission, and
a second data transmission mode for data transmission on the established
connection; and
said target is operable to support said plurality of data transmission modes, and to
transmit the data onto the connection by using said second data transmission mode,
according to a data request from said controller by using said first data transmission
mode.

28. (Previously Presented) A target used in a network control. system for transmitting
data between devices by using a plurality of data transmission modes in a network in
which at least two devices for handling at least one kind of data among video data, audio
data, and information data are connected through one transmission line, wherein:

said at least two devices includes either or both of
at least one controller operable to transmit a message, and
at least one target operable to receive the message and perform processing
according to the message;
said network control system comprises said controller and said target;
said controller and said target are each connected to one transmission line;
a connection for data transmission between said controller and said target is
established by said controller;

said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on the established connection; and

said target has said plurality of data transmission modes, and is operable to spontaneously transmit the data onto the connection by using said second data transmission mode.

29. (Previously Presented) A target used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes at least one of

at least one controller operable to receive and transmit a message,

at least one target operable to perform processing according to the message, and which includes at least one internal function control means for performing data transmission and connection management means for connecting an output of said internal function control means,

a consumer operable to receive data from said target, and

an initiator operable to establish a connection for data transmission between said target and said consumer;

said network control system comprises said controller, said target, said consumer and said initiator;

said controller, said target, said consumer and said initiator are each connected to one transmission line;

said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on the established connection; and

in said target, when said internal function control means performs the data transmission, said connection management means in said target connects the output of said internal function control means to a connection of said second data transmission mode, according to a request from said internal function control means.

30. (Previously Presented) A target used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes at least one of

at least one controller operable to receive and transmit a message,

at least one target operable to perform processing according to the message, and which includes at least one internal function control means,

a consumer operable to receive data from said target, and

an initiator operable to establish a connection for data transmission between said target and said consumer;

said network control system comprises said controller, said target, said consumer and said initiator;

said controller, said target, said consumer and said initiator are each connected to one transmission line;

said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on the established connection; and

said target is operable to transmit data including an identifier which specifies an output source of the data, onto the connection, by using said second data transmission mode.

31. (Previously Presented) A target used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes at least one of

at least one controller operable to receive and transmit a message,

a target operable to perform processing according to the message,

a consumer operable to receive data from said target, and

an initiator operable to establish a connection for data transmission between said target and said consumer;

said plurality of data transmission modes comprise

a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second data transmission mode for data transmission on the established connection;

said network control system comprises said controller, said target, said consumer and said initiator;

said controller is operable to transmit, to said target, an identifier indicating a destination in said consumer by using said first data transmission mode;

said controller, said target, said consumer and said initiator are each connected to one transmission line; and

said target is operable to transmit the data which includes the identifier indicating the destination and which is received by said first data transmission mode, onto the connection, by using said second data transmission mode.

32. (Previously Presented) A target used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

each of said at least two devices includes at least one of

- at least one controller operable to receive and transmit a message,
- at least one target operable to perform processing according to the message, and which includes at least one internal function control means,
- a consumer operable to receive data from said target, and
- an initiator operable to establish a connection for data transmission between said target and said consumer;

said plurality of data transmission modes comprise

- a first data transmission mode which comprises a message transmission for transmitting the message and a message response which is a response to the message transmission, and
- a second data transmission mode for data transmission on the established connection;

said network control system comprises said controller, said target, said consumer and said initiator;

said controller, said target, said consumer and said initiator are each connected to one transmission line;

said controller is operable to transmit the message by using said first data transmission mode to a plug through which data is input and output to/from a desired internal function control means of said target; and

said target is operable to execute the process specified by the message which is directed to the plug.

33. (Previously Presented) A consumer used in a network control system for transmitting data between devices by using a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data are connected through one transmission line, wherein:

- each of said at least two devices includes at least one of
- said consumer,
- at least one controller operable to receive and transmit a message,

a target operable to perform processing according to the message, and
an initiator operable to establish a connection for data transmission
between said target and said consumer;
said network control system comprises said controller, said target, said consumer
and said initiator;
said controller, said target, said consumer and said initiator are each connected to
one transmission line;
said plurality of data transmission modes comprise
a first data transmission mode which comprises a message transmission
for transmitting the message and a message response which is a response to the
message transmission, and
a second data transmission mode for data transmission on the established
connection; and
said consumer is operable to receive data including an identifier indicating the
destination in the consumer, which data is transmitted by said target on the connection by
using the second data transmission mode and which is received from said controller by
using said first data transmission mode.

34. (Previously Presented) A network control system for transmitting data between
devices by using a plurality of data transmission modes in a network in which at least two
devices for handling at least one kind of data among video data, audio data, and
information data are connected through one transmission line, wherein:

each of the devices includes either or both of
at least one controller operable to transmit a message, and
at least one target operable to receive the message and perform processing
according to the message;
said network control system comprises said controller, said target, and an initiator
for establishing a connection for data transmission between said controller and said
target;
said controller, said target and said initiator are each connected to one
transmission line;

said plurality of data transmission modes comprise

a first data transmission mode which comprises message transmission for transmitting the message and message response which is a response to the message transmission, and

a second data transmission mode for data transmission onto the connection established by said initiator; and

said target is operable to transmit data onto the connection by using said second data transmission mode according to the message received by said first data transmission mode.

35. (Currently Amended) A network control system for transmitting data between devices by using ~~plural protocols~~, a plurality of data transmission modes in a network in which at least two devices for handling at least one kind of data among video data, audio data, and information data, are connected through one transmission line, wherein:

each of the at least two devices includes either or both of

at least one target operable to receive a message and perform processing according to the message, and

at least one controller operable to transmit the message and establish a connection for data transmission with said target;

said network control system comprises said controller, said target and an initiator for establishing a connection for data transmission between said controller and said target;

said controller, said target and said initiator are connected to one transmission line;

said plurality of data transmission modes comprise

a first data transmission mode which comprises message transmission for transmitting the message and a message response which is a response to the message transmission, and

a second ~~protocol~~ data transmission mode for data transmission onto the connection;

said initiator is operable to establish, before data transmission, a connection of
said second ~~protocol~~ data transmission mode between said controller and said target;
when said controller receives the data from said target, said controller is operable
to make a data request by using said first data transmission mode;
said target is operable to transmit the data onto the connection by using said
second data transmission mode; and
said controller is operable to receive the data by using said second data
transmission mode.

36. (Currently Amended) A network control system for transmitting data between
devices by using ~~plural protocols~~, a plurality of data transmission modes in a network in
which at least two devices for handling at least one kind of data among video data, audio
data, and information data, are connected through one transmission line, wherein:

each of the devices includes either or both of
at least one controller operable to transmit a message, and
at least one target which operable to receive the message and perform
processing according to the message;
said network control system comprises said controller, said target, and an initiator
for establishing a connection for data transmission between said controller and said
target;

said controller, said target and said initiator are each connected to one
transmission line;

said plurality of data transmission modes comprise

a first data transmission mode which comprises message transmission for
transmitting the message and a message response which is a response to the
message transmission, and

a second data transmission mode for data transmission onto the
connection;

said initiator is operable to establish, before data transmission, a connection by
using said second data transmission mode between said controller and said target;

said target is operable to spontaneously transmit data to said controller through the connection by using said second data transmission mode; and

said controller is operable to receive the data by using said second data transmission mode.